REMARKS

Claims 1, 2, 3, 5-12, and 14-19 are pending in this application and under consideration. Claims 1 and 10-18 are amended herein. Claims 4 and 13 are cancelled herein without prejudice or disclaimer. New claim 19 is added herein. Support for the amendments to the claims may be found in the claims as originally filed, and at page 4, lines 15-19 and 24-27, continuing at page 5, line 1. Support for new claim 19 may be found at page 7, lines 1-17. Reconsideration is requested based on the foregoing amendment and the following remarks.

Claim Rejections - 35 U.S.C. § 101:

Claims 10, 11, 12, and 14-18 were rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Claims 10, 11, 12, and 14-18 have been amended in substantial accord with the Examiner's suggestions. The Examiner's suggestions are acknowledged with appreciation. Claims 10, 11, 12, and 14-18 are submitted be directed to statutory subject matter within the meaning of 35 U.S.C. § 101. Withdrawal of the rejection of claims 10, 11, 12, and 14-18 is earnestly solicited.

Claim Rejections - 35 U.S.C. § 102:

Claims 1, 2, 3, 5, 6, 9-12, 14, 15, and 18 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,839,109 to Iwamida et al. (hereinafter "Iwamida"). The rejection is traversed to the extent it would apply to the claims as amended. Reconsideration is earnestly solicited.

In the claimed invention, a display, for example, may be controlled based on a sound element that is not matched with the characteristics of the voice among the characteristics of sound, such as ambient or background noise. The fifth clause of claim 1, in particular, recites:

> Specifying, as a characteristic of an ambient sound, a sound element that is not matched with the characteristic of the voice among the characteristic of the sound.

Iwamida neither teaches, discloses, nor suggests "specifying, as a characteristic of an ambient sound, a sound element that is not matched with the characteristic of the voice among the characteristic of the sound," as recited in claim 1. Iwamida, rather, is extracting features for recognition from an *input* sound signal, comparing the extracted features of the input sound signal with feature patterns stored in a standard feature pattern storage, selecting a standard sound signal corresponding to the input sound signal, and displaying display information

corresponding to the standard sound signal. In particular, as described at column 2, lines 22-36:

> The speech recognition apparatus of the present invention comprises, as in a conventional speech recognition apparatus, sound input means for inputting a sound signal; feature extracting means for extracting features for recognition from the sound signal; standard feature pattern storing means for storing feature patterns of standard sound signals; comparing means for comparing the features of the input sound signal with the feature patterns stored in the standard feature pattern storing means, and for selecting a standard sound signal corresponding to the input sound signal; display pattern storing means for storing display information corresponding to the standard sound signals; and display means for displaying the display information corresponding to the standard sound signal selected by the comparing means.

Since Iwamida is extracting features for recognition from an input sound signal, Iwamida is not "specifying, as a characteristic of an ambient sound, a sound element that is not matched with the characteristic of the voice among the characteristic of the sound," as recited in claim 1.

Iwamida, moreover, compares the time series (input pattern) of frequency feature parameters for an *input* sound signal with the standard patterns. In particular, as described at column 3, lines 62-66:

> The numeral 41 is a comparator which, using a technique such as DP matching, compares the time series (input pattern) of frequency feature parameters for an input sound signal with the standard patterns, and selects a standard pattern that provides the closest match with the input pattern.

Since Iwamida compares the time series (input pattern) of frequency feature parameters for an input sound signal with the standard patterns, Iwamida is not "specifying, as a characteristic of an ambient sound, a sound element that is not matched with the characteristic of the voice among the characteristic of the sound," as recited in claim 1.

Iwamida, finally, stores nonspeech sounds such as a fire engine's siren sound, a baby's crying, etc., as standard patterns, rather than ambient sound. In particular, as described at column 4, lines 17-21:

> In the present embodiment, several tens of spoken messages necessary in daily life, such as "Good Morning," "Meal is ready," etc., and several kinds of nonspeech sounds, such as a fire engine's siren sound, a baby's crying, etc., are stored as standard patterns.

Since Iwamida stores nonspeech sounds such as a fire engine's siren sound, a baby's crying, etc., as standard patterns, Iwamida is not "specifying, as a characteristic of an ambient sound, a sound element that is not matched with the characteristic of the voice among the characteristic of the sound," as recited in claim 1. Claim 1 is submitted to be allowable. Withdrawal of the

rejection of claim 1 is earnestly solicited.

Claims 2, 3, 5, 6, and 9 depend from claim 1 and add further distinguishing elements. Claims 2, 3, 5, 6, and 9 are thus also submitted to be allowable. Withdrawal of the rejection of claims 2, 3, 5, 6, and 9 is also earnestly solicited.

Claims 10, 11, 12, 14, 15, and 18:

The third clause of claim 10 recites:

> Specifying, as a characteristic of an ambient sound, a sound element that is not matched with the characteristic of the voice among the characteristic of the sound.

Iwamida neither teaches, discloses, nor suggests "specifying, as a characteristic of an ambient sound, a sound element that is not matched with the characteristic of the voice among the characteristic of the sound," as discussed above with respect to the rejection of claim 1. Claim 10 is thus submitted to be allowable, for at least those reasons discussed above with respect to the rejection of claim 1. Withdrawal of the rejection of claim 10 is earnestly solicited.

Claims 11, 12, 14, 15, and 18 depend from claim 10 and add further distinguishing elements. Claims 11, 12, 14, 15, and 18 are thus also submitted to be allowable. Withdrawal of the rejection of claims 11, 12, 14, 15, and 18 is also earnestly solicited.

Claim Rejections - 35 U.S.C. § 103:

Claims 7, 8, 16, and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwamida in view of U.S. Patent No. 6,823,312 to Mittal et al. (hereinafter "Mittal"). The rejection is traversed to the extent it would apply to the claims as amended. Reconsideration is earnestly solicited.

Claims 7 and 8 and claims 16 and 17 depend from claims 1 and 10, respectively. Iwamida neither teaches, discloses, nor suggests "specifying, as a characteristic of an ambient sound, a sound element that is not matched with the characteristic of the voice among the characteristic of the sound," as discussed above with respect to the rejection of claim 1. Mittal does not either, and thus cannot make up for the deficiencies of Iwamida with respect to any of claims 7, 8, 16, or 17. Claims 7, 8, 16, and 17 are thus also submitted to be allowable. Withdrawal of the rejection of claims 7, 8, 16, and 17 is earnestly solicited.

New claim 19:

The sixth clause of claim 19 recites:

Displaying the predetermined image while outputting the voice sound.

None of the cited references teach, disclose, or suggest "displaying the predetermined image while outputting the voice sound" as recited in claim 19. Iwamida, for example, may be seen to have made no provision for audio output in Fig. 1 or Fig. 2 at all, and thus cannot display an "image while outputting the voice sound," as recited in claim 19.

Iwamida, rather, displays the result of the recognition as characters for viewing by a hearing-impaired person, for whom the voice sound would be superfluous. In particular, as described at column 1, lines 48-56:

> For communication with hearing-impaired people, sign language or writing is used. One potential use of the speech recognition device is to assist the hearing impaired in carrying out conversation with people having normal speech ability. In this case, the person having the normal speech ability speaks as usual, and his or her voice is recognized by means of the speech recognition device which displays the result of the recognition as characters for viewing by the hearing-impaired person.

Since Iwamida displays the result of the recognition as characters for viewing by a hearing-impaired person, Iwamida is not "displaying the predetermined image while outputting the voice sound," as recited in claim 19.

Iwamida, moreover, is applicable to a speech recognition apparatus for use in situations where generating sounds is not *desirable*. In particular, as described at column 1, lines 57-63:

> The present invention is particularly suitable for a speech recognition apparatus used for such a purpose, but it is not limited to this particular purpose; for example, the invention is also applicable to a speech recognition apparatus for use in situations where there is a need to obtain voice information from some other place but generating sounds is not desirable, such as during a conference.

Since Iwamida is applicable to a speech recognition apparatus for use in situations where there is a need to obtain voice information from some other place but generating sounds is not desirable, Iwamida is not "displaying the predetermined image while outputting the voice sound," as recited in claim 19.

Even when the audio is output, it is not audio of the voice sound, but rather a speech sound *synthesized* from the result of the recognition so that the speaker can verify it. In particular, as described at column 1, lines 33-38:

> The result of the recognition of a speech signal may be output directly by assuming that the recognition has been done correctly, but to ensure the correctness of the recognition, it is standard practice to output a speech sound synthesized from the result of the recognition so that the speaker can verify it.

Since Iwamida outputs a speech sound synthesized from the result of the recognition so that the speaker can verify it, Iwamida is not "displaying the predetermined image while outputting the voice sound," as recited in claim 19.

Iwamida, finally, produces only a *display* corresponding to the closest matching standard pattern on the display device 62 in accordance with the result of the comparison fed from the comparator 41. In particular, as described at column 4, lines 47-58:

> The display controller 61 produces a display corresponding to the closest matching standard pattern on the display device 62 in accordance with the result of the comparison fed from the comparator 41. When the standard pattern to be displayed represents a speech sound, the display controller 61 reads the codes of the character string to be displayed and the pattern of each character from the character ROM 53, assembles them, and outputs the resulting video signal to the display device 62. Alternatively, the character ROM 53 may be constructed to contain the patterns of the character strings corresponding to the standard patterns; in such a case, the display controller 61 can be simplified in construction.

Since Iwamida produces only a display corresponding to the closest matching standard pattern on the display device 62, Iwamida is not "displaying the predetermined image while outputting the voice sound," as recited in claim 19.

Mittal, for its part, displays the speech in text or as graphics on a display panel on the phone device *instead* of an audio heard through the phone speaker. In particular, as described at column 2, lines 54-57:

> The second object of this invention is to display the speech in text or as graphics on a display panel on the phone device instead of being an audio heard through the phone speaker.

Since Mittal displays the speech in text or as graphics on a display panel on the phone device instead of an audio heard through the phone speaker, Mittal is not "displaying the predetermined image while outputting the voice sound," as recited in claim 19.

Mittal, moreover, extracts *words* from the audio signal, not ambient sounds. In particular, as described at column 8, lines 5, 6, and 7:

> The Data Processor (2) receives the audio signal from the input interface (1) and extracts words including keywords from the audio signal and/or modifies the audio signal.

Since Mittal extracts words from the audio signal, not ambient sounds, Mittal is not "displaying the predetermined image while outputting the voice sound," as recited in claim 19. Claim 19 is

thus believed to be allowable.

Conclusion:

Accordingly, in view of the reasons given above, it is submitted that all of claims 1, 2, 3, 5-12, and 14-19 are allowable over the cited references. Allowance of all claims 1, 2, 3, 5-12, and 14-19 and of this entire application is therefore respectfully requested.

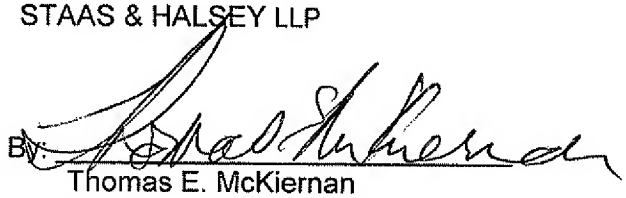
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 19 JUL 07

By: 

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